

VACCINATION COVERAGE ASSESSMENT
IN
CHICKMAGALUR DISTRICT

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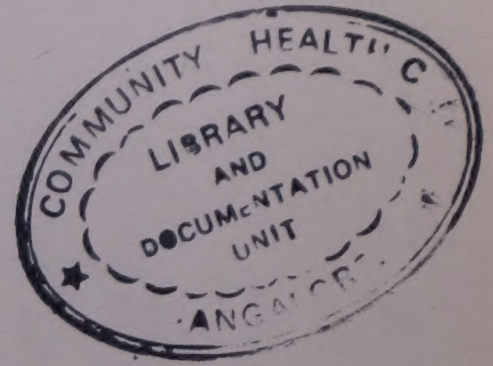
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I N
C H I K M A G A L U R D I S T R I C T



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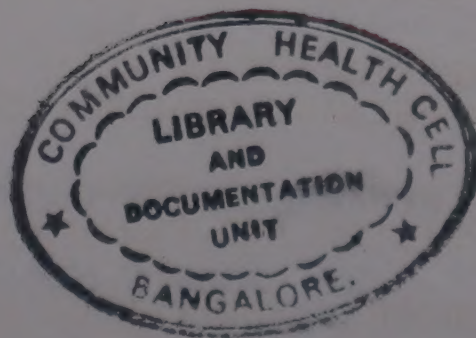
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BASELINE VACCINATION COVERAGE ASSESSMENT

CHIKMAGALUR DISTRICT, KARNATAKA, INDIA

(16TH SEPT. 1987 TO 21ST SEPT. 87)

ST. JOHN'S MEDICAL COLLEGE, BANGALORE-54



DEPT OF COMMUNITY MEDICINE
ST. JOHN'S MEDICAL COLLEGE
BANGALORE 560 034

A C K N O W L E D G E M E N T

We express our sincere thanks to Fr. Percival Fernandez, Director, St. John's Medical College and Hospital; to Dr. A.F.A. Mascarenhas, Principal, St. John's Medical College for permitting us to carry out the evaluation; to all the staff members of the Department of Community Medicine, St. John's Medical College for their help and co-operation; to Dr S.B. Hendi, District Health Officer, Chikmagalur District; to Dr. Srikanthiah; Dr. Nanjundaiah and Dr. Sundar, District level Officers, Chikmagalur District; to the Director, Health & Family Welfare Department; to The Additonal Director (MCH & FW), Dept of Helath and Family Welfare, Government of Karnataka; to Dr. K. Suresh, Deputy Director (EPI & MCH) Dept of Health and Family Welfare, Govt. of Karnataka; to Mr. Reva Shetty, Assistant Director, Directorate of Census operations; to all the Medical Officers and field staff of Chikmagalur District; We appreciate the sincerity and dedication of the following interns of St. John's Medical College as members of the survey team:

Dr. Nikhil Mehtha

Dr. Jose James

Dr. Joseph Ravindra

Dr. George Joseph

Dr. Osborn D'Souza

Dr. Sanel Verghese

On request from the Government of Karnataka as per Letter No. EPI/6C/87-88 dated 13th August 1987, St. John's Medical College took up vaccination coverage assessment survey in Chikmagalur District from 16th to 21st of September 1987. The observations are being presented in this report.

1.0 BACKGROUND INFORMATION:*

1.1 General Profile:

Chikmagalur District, with an area of 7201 sq.km., situated towards the south west of the geographical centre of the state ($12^{\circ} 55'$ and $13^{\circ} 54'$ North latitude and $75^{\circ} 05'$ and $76^{\circ} 22'$ East Longitude) is flanked by Shimoga District towards North, Chitradurga and Tumkur districts towards South East and South and Dakshina Kannada district towards West. Nature has blessed this district with agreeable climate and scarcity and famine appear to be rare. Heavy to very heavy rain fall is the feature observed in the district. The mean annual rainfall is 1990mm ranging from 600mm in eastern belt to 3000mm in Western belt. The average number of rainy days is 92. March and April are summer months with mean maximum temperature of 30°C with January and December as winter months with mean minimum temperature of 19°C . Southwest monsoon sets in June and rainy season lasts till october.

Chikmagalur is one of the prosperous districts of the state. Land is the primary resource; plantation and food grain cultivation are the twin pillars on which the economy of the District is resting now. Coffee cultivation to a very large extent, Cardomon, areca, cocoanut to a significant extent are predominant bases of economy. Agriculture constitutes the occupation of 39% of the population. Paddy, Ragi and Jowar are

* Source: District census hand book, Chikmagalur, Part XIIIB - A Series, Census of India - 1981, Directorate of Census Operations, Karnataka.

the field crops commonly grown. As on 1977-78, 42,224 hectares of the area was used for coffee cultivation; 12,000 hectares for cardamom cultivation; pepper, areca and cocoanut in 14,000 hectares. Land per person is 0.79 hectares and 25% of the district consists of forests - evergreen; semievergreen; moist deciduous and also dry deciduous forests.

The forest revenue is mainly from:

- i) Sandal wood
- ii) Hard wood
- iii) Soft wood
- iv) Bamboo
- v) Cane
- vi) Bark of Tangadi & Kakke plants
- vii) Leaves of Tupra/Tumri seeds
- viii) Tamarind
- ix) Honey
- x) Resins
- xii) Industries like plywood, slate frames, timber & fire wood.

Chikmagalur is industrially very backward and no large scale industries are set up in the area. Some of the prominent industries include:

- i) Vignyan industries
- ii) Sugar factory
- iii) Edible oil manufacture
- iv) Coffee curing works
- v) Tea factories
- vi) Rice mills
- vii) Saw mills
- viii) Ayurvedic medicine industries

It is estimated that there are 7917 estates in the district of which 67 estates are company owned; 1368 estates are of the

area between 5 to 10 acres where as 4552 estates are less than 5 acres. Individuals owning estates more than 10 acres constitute 1030.

Live stock of the district is an inferior non-descript breed characterised by stunted growth, lesser period of lactation and low work yield. Live stock in Chikmagalur constitutes 3.35% of the total live stock picture of the state.

There are 1114 villages and 45 urban divisions. Among the 1114 villages 953 are inhabited. If each human settlement within the revenue limits of a nearest settlement, say of 1 KM were to be regarded as a separate hamlet, each in the Malnad belt would have scores of such units and identification of each such unit with reference to permanent features would also pose great difficulty. Chikmagalur happens to be the least urbanised district with 17.54% of the total population living in 10 towns of the district. Chikmagalur town alone has population of 37.89% of total urban population of the district. No notified slums are observed in the urban areas.

In the Malnad Zone (Chikmagalur, Sringeri, N.R.Pura, Mudigere & Koppa Taluks) the composition of migrant workers is an important factor that affects the sex ratio and therefore has to be taken into consideration in any deeper analysis. Also, coffee, cardamom, areca, cocoanut are labour intensive enterprises and have enough scope for engaging women and child workers for a major part of the year. It appears that the migrant labour force consists of a larger proportion of males than females and that among such male labourers quite a large number are illiterate.

Except Kadur and a major part of Tarikere taluks, the district has a rugged terrain. In the villages located in the Malnad zone, the existence of a pucca road is not a matter of great significance because the houses are generally scattered all over the revenue villages and most of these houses can be reached only by some Katcha road or by a foot path. Considering this, it was of interest to review the communication facilities

particularly with respect to availability of a bus stop or a railway station or both in the limits of the village concerned. A grouping of 562 villages not having communication facilities according to the distance to be covered to reach the nearest bus stop indicated that the distance is less than 5 km in 82.38% of these villages; between 5 & 10 km for 13.35% and 10 km for the remaining 4.27% of the villages.

The following developmental programmes are operating in the district.

1. Twenty point Economic Programme
2. Western Ghat Development Scheme
3. Integrated Agricultural Area Programme
4. Drought prone area programme
5. Tribal sub plan
6. Bhadra Command Area Development Programme
7. Inland Fisheries Development Programme
8. Scheme initiated by Coffee Board.

1.2 Demographic profile:

CHIKMAGALUR DISTRICT

KARNATAKA STATE

Area (sq. km)	7201	191791
Population: Total	911769	37135714
Male	466918	18992627
Female	444851	18213087
Rural	751890	26406108
Male	383009	13352400
Female	368881	13053708
Urban	159879	10729606
Male	83909	5570227
Female	75970	5159379
Decennial population Growth rate	23.77%	26.75%
Sex ratio (for every 1000 males)	953	963
Percentage of urban population	17.54%	28.89%
No. of Towns	10	281
No. of Villages:		
Total	1114	29390
Inhabited	953	27024
Uninhabited	161	2366

MAIN WORKERS:

CHIKMAGALUR DISTRICT

KARNATAKA STATE

Cultivators	38.99%	38.25%
Agricultural labourers	19.91%	26.78%
Household industry	1.97%	4.10%
Other workers	39.13%	30.87%

Literary rate:	Persons	Male	Female
Total	43.50%	52.57%	33.97%
Rural	39.90%	49.40%	30.04%
Urban	60.41%	67.04%	53.09%

93.3% of the population residing in 836 (82.53)* of the villages have facility of electricity.

Apart from the common health problems observed all over India, it is pertinent to mention one observation that there is a focus of *Falciparum* infection (48 in 1987) among nomadic tribes in Ajjampura PHC area in Tarikere Taluk. Endemic foci of Handigodu syndrome exist in Sringeri, Koppa and Chikmagalur taluks. To date, 200 cases are registered. Two cases of K.F.D. were reported during 1980-81.

It was of interest to note that the district is continuously on the forefront with respect to performance under National Family Welfare Programme. From 1980-81 onwards its performance is of the order of more than 110% of the expected performance.

* Figures in parenthesis in this report indicate percentages.

1.3 Health Infrastructure:

The District has two Revenue sub-divisions namely Tarikere and Chikmagalur. N.R. Pura, Chikmagalur, Mudigere, Sringeri and Koppa Taluks constitute Chikmagalur sub-division. Tarikere and Kadur are in Tarikere sub-division. Corresponding to the Revenue sub-divisions, the Health Infrastructure is also divided into two sub-divisions. Tarikere and Chikmagalur each is headed by one Assistant District Health and Family Welfare Officer. There are 17 Primary Health Centres and the following are the details of Taluk wise location of the same:

Taluk	Name of Primary Health Centres	Regd. target population under 1 year	Regd. No. of pregnant women

Chikmagalur	Shirvase	825	384
	Kalasapura	1157	945
	Mallandur	644	385
	Balehonnur	585	395
Kadur	Nidaghatta	3268	1386
	Hirenallur	606	1537
	Yagati	294	372
Koppa	Koppa	524	269
	Jayapura	446	357
Mudigere	Gonibeedu	450	245
	Balehole	189	386
	Banakal	252	414
	Kalasa	1021	242
N.R. Pura	N.R. Pura	687	306
Sringeri	Begar	494	279
Tarikere	Tarikere	1837	1312
	Ajjampura	1045	747

Among the 17 Primary Health Centres, 5 come under the Minimum needs programme, 9 have inputs from Integrated Child Development Services Scheme also and 3 under the Tribal sub plan. Village Health guide scheme is existing in all the Primary Health

Centres. Immunization activities are part of the routine health activities. This programme got an impetus since 1978 when Expanded Programme of Immunization (EPI) was introduced. This programme is expected to have further enhancement from 1987 onwards with the inclusion of the district under Universal Immunisation Programme.

The staff position of the relevant categories in the whole of district was as follows:

Designation	No. of posts Sanctioned	No. of posts working	No. of posts vacant
1. District Health and Family Wel- fare Officer	1	1	-
2. Assistant District Health & Family Welfare Officers	2	2	-
3. Medical Officer (MCH & FW)	1	-	1
4. Medical Officers	114	93	21
5. Lady Medical Officers	18	13	5
6. Asst. Nutrition Officer	-	-	-
7. District Health Education Officer	1	1	-
8. Deputy Health Education Officer	2	2	-

9. District Nursing supervisors	2	2	-
10. Senior Non-Medical supervisors	1	1	-
11. Junion Non-Medical supervisors	2	1	1
12. Senior Health Assistant (male)	37	28	9
13. Senior Health Assistant (female)	47	47	-
14. Health Visitor (Tuberculosis)	-	-	-
15. Block Health Educators	17	10	7
16. Staff Nurses	44	33	11
17. Jr. Health Assistant (male)	169	147	22
18. Jr. Health Assistant (female)	352	315	37
19. Vehicle Drivers	32	19	13
20. Village Health guides	731	731	-
21. Refractionists	6	6	-
22. Pharmacists	87	68	19

23. District Malaria

Officer

1

1

-

1.4 Progress under UIP:

I. The District was included under UIP since April 1987. From April 1987 till September 1987 it has been found that the following staff are exclusively working for the UIP Activities.

1. District immunization officer (since Sept.'87)-sanctioned since April '87.

2. Vehicle drivers 3

3. One refrigerator mechanic

4. One statistical officer

II. The district procured Measles vaccine in August 1987.

III. Three day Modular training on EPI for Mid-level Managers (Medical Officers) of the district and one day Modular training for Health workers of all Primary Health centres is due in October 1987.

1.5 With the objective of vaccination coverage assessment, reviewing the causes for partial immunization and non immunization, and studying the knowledge, attitude and practice of mothers and knowledge, attitude and practice of health personnel involved in the programme, the following components were studied.

Components	Methodology	Parameters reviewed
1. Planning, Supervision & Monitoring	Discussion with senior District Health personnel	1. Immunization performance during previous one year 2. Details of procurement and distribution of vaccines. 3. Health facilities and manpower data 4. Disease surveillance at District level 5. Cold Chain maintenance at District level.
2. Quality of cold chain	Visit to primary Health Centres.	1. Working status and maintenance of refrigerators and Storage of vaccines. 2. Temperature recording 3. Vaccine indenting procurement & distribution

		4. Collection of vaccines for potency testing.
3. Knowledge, attitude and practice of Health Personnel (Medical Officers and Health workers)	Using predesigned pretested schedule (in local language for Health workers) developed for the purpose.	Twenty components under UIP detailed later.
4. Health Education Activities	Discussion with District Health Education personnel and Medical Officers of Primary Health Centres.	Availability, mode of usage and frequency of Health Education programmes with respect to Immunization.
5. Knowledge, Attitude and Practice of mothers	Predesigned questionnaire developed by WHO	Parameters detailed later
6. Vaccination coverage Assessment.	Cluster sampling technique.	1. Vaccination status with respect to BCG, DPT, Polio, Measles-- Primary vaccination and tetanus toxoid status of mothers of beneficiaries.
		2. Documentary evidence with the mother/with the

register of the health worker.

7. To review the possible causes for non-immunization and partial immunization of eligible population	Pre-designed questionnaire developed by WHO	Causes for lack of information, lack of motivation and obstacles.
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2.0 FINDINGS

2.1 Planning, Supervision, and Monitoring:- District Level:

District Health & Family Welfare Officer is responsible for planning, Supervision and monitoring of the immunisation programme in consultation with Asst. District Health Officers of the two sub divisions viz., Chikmagalur and Tarikere. One deputy Surgeon was posted as District planning officer for immunization on 15.9.1987. The guidelines regarding implementation of the immunization programmes were given to Medical Officers and non-medical supervisors by District Health & Family Welfare Officer during monthly conferences.

Though the District is included under UIP since April 1987, except for inputs like vehicles and adequate doses of measles vaccines supplied during August 1987, no major thrust to the immunization programme was obvious. The training programme for Medical Officers and Non-Medical supervisors was scheduled to commence in Oct. 1987.

The performance under EPI from September 1986 to August 1987 is detailed below:-

2.1.1. Performance under EPI

It was of interest to review the performance under EPI from Sept. 1986 to Aug. 1987. The following is an outline of the available data.

	Vaccine	No. of Beneficiaries
D P T	I dose	23442
	II dose	21435
	III dose	21105
O P V	I dose	23162
	II dose	21220
	III dose	20870
BCG		25961
Measles		230
T.T.	I dose	20027
	II dose/Booster	25820

2.1.2. Indenting, receipt and issue of vaccines to peripheral institutions.

Sl. No.	Items	Opening balance as on 1.9.86	Receipts	Total	Issued to peripheral institution	Closing balance as on 31.8.1987
		*	*	*	*	*
1.	D P T	5650	60,000	65,650	63,100	2550
2.	Polio	-	66,000	66,000	66,000	nil
3.	D T	4000	26,000	30,000	30,000	nil
4.	T T	7650	92,800	100,450	93,950	6500
5.	TAB	-	24,000	24,000	24,000	nil
6.	Measles	-	2,000	2,000	1,750	250
7.	BCG	1200	43,400	44,600	44,500	100

* Doses

2.1.3. Health Facilities:

The following is a profile of fixed Health centres and subcentres of Government infrastructure in the District.

Facilities	Number
1. General Hospitals: Urban	1
Rural	3
2. Post partum centres: Urban	1
Rural	2
3. Primary Health Centres	17
4. Sub-Centres	350
5. Dispensaries: Urban	-
Rural	59
6. ICDS Blocks: Urban	-
Rural	3
7. Rehabilitation centres	-
8. Medical Colleges	-

2.1.4. Disease Surveillance:

The statistical investigator was incharge of compilation of monthly report obtained from the Primary Health Centres. Malaria, Handigodu syndrome were in active-Surveillance in pockets of Chikmagalur district as alluded to already. An attempt was made to know the surveillance data from the previous five years with respect to Diphtheria, Pertussis, Tetanus, Polio, Childhood Tuberculosis and Measles as reported to the District Health & Family Welfare Officer.

Diseases	1982*	1983*	1984*	1985*	1986*
Diphtheria	28	15	38	68	40
Pertussis	00	00	00	00	00
Neonatal Tetanus	00	00	00	00	00
Tetanus (other)	8	12	42	7	-
Polio	00	00	00	00	00
Childhood Tuberculosis	250	232	1530	2667	527
Measles	72	50	337	259	151

* cases

It is obvious that these are data of passive surveillance and active surveillance can only throw a true picture. Sentinel centres are yet to be established. Though data on vaccine preventable diseases as highlighted above is available, the same by age and immunization status of the cases is not available. No evidence was found of the incidence data being used for evaluation of immunization programme in the district.

2.2 Planning, Supervision and Monitoring - Primary Health Centre Level.

Guidelines as regards implementation of all the programmes were given in the monthly conferences by the Medical Officers, often with a representative from District level. The Block Health Educator/Headquarters senior Health Assistant (Male) were incharge of compilation of reports including status of vaccine

stock for onward transmission to District Health Office.

It is pertinent here again to mention that the Primary Health Centres were still in early preparatory phase and knowledge regarding objectives and content of UIP was still new. So, special emphasis for planning, supervision and monitoring of the immunization programme was not obvious in Primary Health Centres also.

3.0 QUALITY OF COLD CHAIN:

3.1 District Level:

3.1.1. Procurement of Vaccines: Vaccines were being procured from State store, i.e. Public Health Institute, Bangalore City about 287 km from Chikmagalur (Journey time - 5 hours by road) in big cold boxes transported in vehicles of District Office. There is no facility for Air travel.

3.1.2. Storage of Vaccines: In the District stores the vaccines were being stored in three Refrigerators (Conventional type); all the three Refrigerators being in working condition. Two big cold boxes were available apart from two thermocol boxes. Forty two ice packs and twenty nine dial thermometers were in stock in the District stores. Stacking of vaccines was in order, however temperature records were not maintained; even the dial thermometer was not found being used for the refrigerator. One First Division clerk was in charge of vaccine ordering, storage, packaging and distribution and this store clerk was found to have sufficient knowledge with respect to maintenance of cold chain. One Refrigerator Mechanic was in employ. For major repairs of the refrigerator, facilities were available at Shimoga, 100 km from Chikmagalur.

Procurement and issue register of vaccines was well maintained. Electricity fluctuations and power cuts were

very frequent - 30 minutes to 1 hour almost every day.

3.2.0 Primary Health Centre Level:

3.2.1. Vaccine Procurement: Vaccine were being procured once a month and in some primary Health Centres twice a month. One of the Health workers of the PHC transported the vaccines from the District Office in Vaccine Carriers to PHC either by bus or vehicle of the PHC. The supply of vaccines was continuous and adequate with respect to DPT, TT, DT and BCG. Polio vaccine was in short supply since August 1987. Measles vaccine was being utilised only in two Primary Health Centres.

3.2.2. Refrigerators: Neither the District Stores nor any of the Primary Health Centres had ice lining Refrigerators. From among the 13 out of the 17 Primary Health Centres from where information regarding cold chain equipment was received, it was found that only one Primary Health Centre did not have a Refrigerator. In one Primary Health Centre the Refrigerator was under repair. In 13 Primary Health Centres, altogether there were 18 Refrigerators. Among them, 6 were not working.

3.2.3 Vaccine Carriers: From the information received from 13 Primary Health Centres, it was obvious that two Primary Health Centres did not have vaccine carriers. The No. of vaccine carriers at Primary Health Centres varied between 2 to 4 with 3 PHCs having only 1 vaccine carrier each. Vaccine flasks were very often used in all PHCs for field vaccination sessions.

3.2.4 Temperature Recording: The recording of temperature of the refrigerator was deficient on the whole, except in 3 PHCs where it was done twice daily and in 6 PHCs only once daily.

3.2.5 The above information regarding refrigerators, vaccine

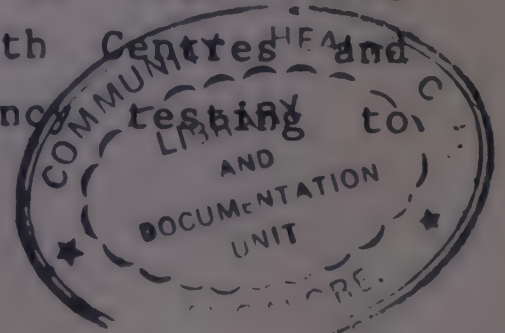
carriers and Temperature recording was obtained by predesigned questionnaire from the Administrative Medical Officers of the Primary Health Centres. During vaccination coverage Assessment an attempt was made to personally review the status of cold chain maintenance. Accordingly, 5 Primary Health Centres and One post partum centre (Chikmagalur Town) were visited. The following is the brief outline of the observations made.

1. Vaccines were often carried in vaccine flasks though vaccines carriers were available.
2. Temperature recording was being done regularly twice a day in two Primary Health Centres. Two Primary Health Centres did not have Dial Thermometers for recording temperatures.
3. Polio and Measles vaccine vials were often being stacked in the Freezer compartment, thus reducing the availability of space for Ice packs. Vaccines were stacked in a haphazard manner in some refrigerators.
4. Ice packs were found in the lower shelves and door in some of the refrigerators. In some of the Primary Health Centres, preparation of Ice packs was deficient; either they were not fully frozen or the quantity of water used was less.
5. None of the Primary Health Centres followed the practice of storing water bottles in the lowest shelf.
6. In one of the Primary Health Centres, BCG, T.T. and D.P.T. vaccine vials were stacked in the door of the refrigerator.
7. In one of the Primary Health Centres, defrosting was not being done regularly. In one of the Primary Health

Centres there was not much of fluctuation in the power supply. In the rest of the Primary Health Centres the power failure was for 6-8 hours per day and perhaps this was the reason why defrosting was not a necessity in all these places.

8. In Gonibeedu and Mallandur Primary Health Centres maintenance of vaccine procurement and issue register along with display of Immunization statistics was exemplary.
9. It was found that in all the Primary Health Centres either the Pharmacist/Headquarters LHV/Headquarters Senior Health Assistant (Male) was responsible for the maintenance of the refrigerator. In one of the Primary Health centres, the Medical Officer has been scrupulously maintaining the refrigerator.
10. Use of a separate box to store "used vaccines" was not practiced in any of the Primary Health Centres.
11. In one of the Primary Health Centres where the refrigerator was not working, 50 vials of TAB vaccine were lying in one of the shelves.
12. In all these places cold chain maintenance was observed critically. The Health workers were asked to demonstrate loading of the vaccine carrier for a field vaccination session. In all these places, the Health workers correctly loaded the vaccine carrier with various vaccines. This was one of the highlighting positive trends noticed in the maintenance of cold chain in our experience in immunisation activities at field level.

3.2.6 Vaccines for potency testing: Four vials of Oral Polio vaccine were collected from Primary Health Centres and district stores and were sent for potency testing to



Enterovirus Research Centre (ICMR), Bombay. It has been reported that all the vials are unsatisfactory for use.

3.2.7 Syringes, Needles: Syringes and Needles were in adequate supply in only 7 out of the 13 Primary Health Centres.

3.2.8 Vehicles: It was evident from discussion with the District level officers that almost all Primary Health Centres had a vehicle and at the time of evaluation it was reported that all were in working condition.

4.0 HEALTH EDUCATION ACTIVITIES:

Apart from group talks during vaccination sessions, not much of Health Education activity was found to have been undertaken as revealed from discussions with the District Health Education Officer. Distribution of hand bills on "importance and schedule of immunisation" was practiced in few Primary Health Centre areas. UNICEF posters on EPI diseases were to arrive shortly.

5.0 KNOWLEDGE, ATTITUDE AND PRACTICE OF MOTHERS WITH RESPECT TO IMMUNIZATION:

Knowledge, Attitude and Practice of mothers of 210 children (12 - 23 months - Group I.) coming under the present base line coverage review as well another 210 mothers of children between 1 day to 1 year of age during the period of review (Group II) was studied with the predesigned, pretested schedule developed by WHO. Totally, 420 mothers were subjected for study. Details follow:

* There was no appreciable difference between KAP of mothers of children in Group I and Group II.

* Among mothers of children of Group I, KAP of mothers of children who were fully immunised was better than that of

mothers of children who were partially immunized and unimmunized.

- * Among 420 mothers interviewed, 179(42.62) opined that injections and drops were given to children to prevent sickness. Among them, 109(60.89) were mothers of Group I. However 72(17.14) mothers were not aware why injections and drops were given.
- * Diseases preventable by immunization were not known to 128 (30.47) mothers. Polio, Pertussis, Tuberculosis, Diphtheria were the diseases preventable by immunisation according to 92(21.90), 63(15.00), 57(13.57) and 32(7.62) mothers respectively. Only 21(5.00) and 7(1.66) respectively knew that Tetanus and Measles are preventable by immunisation.
- * When enquired as to what would be the worst possible outcome if the children are not immunised, 224(53.33) acknowledged that they do not know. Prolonged illness, paralysis and weakness were the worst possible outcome according to 107(25.47) 66(15.71) and 28(6.66) mothers respectively.
- * The correct time schedule of DPT, OPV and BCG was known to 272 (64.76) 269(64.05) and 235(55.95) mothers respectively. Time schedule of Measles immunisation was known to 15(3.57) mothers.
- * More mothers knew about the frequency of administration of these vaccines as compared to knowledge regarding the schedule. With respect to knowledge regarding the frequency, the respective figures for mothers who knew, are 286(68.90), 285(61.85) and 229(54.52) for three doses of DPT, three doses of OPV and one dose of BCG. Eight (1.90) mothers knew that Measles vaccination is to be given only once.

- * Mothers were the decision makers about immunization of their children in 200(47.67) families. Mother, father, mother-in-law and father-in-law were the decision makers in 103(24.52), 19(4.52) and 3(0.71) families respectively.
- * Forty five mothers (10.71) did not have any information on immunisation at all. Two hundred and fifteen (51.19) mothers expressed that the Health worker was the main source of information to them on immunisation. Though 9 Primary Health Centres come under ICDS scheme, only 24(5.71) mothers had information from Anganwadi workers while Medical Practitioners were the source of information for 72(17.14) mothers.

MAP OF CHIKMAGALUR DISTRICT SHOWING CLUSTERS OF SURVEY



- ⊙ Taluk headquartres
- Cluster villages
- Taluk border

NAMES OF CLUSTERS FOR VACCINATION COVERAGE

ASSESSMENT IN CHIKMAGALUR DISTRICT

CLUSTER NO. NAME OF THE CLUSTER

1.	BINDIGA	11.	CHIKKANALLUR	21.	HEMAKKI
2.	BIGGANAHALLI	12.	GARJE	22.	K. KANABUR
3.	SATHI HALLI	13.	YELLAMBALSE	23.	KOLALE
4.	BIKKARANE - HUIGERE	14.	SOMANAHALLI	24.	RUSHYASHRINGAPURA (MARKA
5.	THADABENAHALLI	15.	KADUR, DIVISION NO. II	25.	HULIYUR
6.	CHIKMAGALUR DIVISION NO. I	16.	KALASAPURA, BINIRAVALLY	26.	LINGADAHALLI
7.	CHIKMAGALUR DIVISION NO. II	17.	HOSURU	27.	VITTALA PURA
8.	UPPUNSE	18.	KOPPA TOWN DIVISION NO.V	28.	GADIHALLI
9.	SAKREPATNA	19.	HALEKERE	29.	SIRGALIPURA, KENCHAPURA
10.	KETHUMARANAHALLI	20.	KELAGUR ESTATE	30.	TARIKERE DIVISION NO. I

6.0 VACCINATION COVERAGE ASSESSMENT

6.1 Methodology:

The latest available (1981) villagewise and wardwise urban population data of Chikmagalur District was procured from the Directorate of Census Operations, Bangalore. On the basis of this data, thirty clusters were selected using standard technique recommended by WHO. The steps of the sampling techniques are presented below.

- i) The serial list of villagewise and wardwise urban population was procured. This constituted population data of 1114 villages and 45 urban wards (Total population 911769).
 - ii) Cumulative population of each unit was calculated and written.
 - iii) The sampling interval was determined by dividing the total population by 30 (30392 - Cluster interval).
 - iv) A random number which is less than or equal to sampling interval was selected (18463).
 - v) The first village or wardwise urban unit in which the cumulative population equals or just exceeds the random number is the first cluster (18463) location.
 - vi) The village in which cluster 2 is located was identified by adding random number with the sampling interval. The cumulative population of the village which equals or exceeds the number calculated above is the community in which cluster 2 is located (48855).
 - vii) Cluster 3 to 30 were identified using the above procedure. Location of clusters are depicted in the adjoining map.
- The field team consisted of three groups. Each group consisted of one faculty member of Community Medicine Department.

and two interns as investigators. The field group I covered 14 clusters in Tarikere and Kadur taluks. The field group II covered 8 clusters in Chikmagalur, Mudigere taluks. The field group III covered 8 clusters in Koppa, Sringeri, N.R. Pura taluks and Chikmagalur town.

A briefing session for the investigators in order to discuss the proforma, method of enquiry and services available was conducted in the department. Seven children of 12 to 23 months of age born between 15th Sept. 1985 and 14th Sept. 1986 were taken up for study. The birth day was ascertained by the history from the mother/birth certificate/Register of Anganwadi worker/Register of Health worker or correlating the date mentioned by the mother with the local religious festivals or events. A minimum of six months stay in the area was taken up as a criterion for resident children. The date noted in the immunization card or child health card or immunization register was taken as evidence of immunisation. In those cases where documentary evidence was not available, time was spent with the mother to ascertain correctness of history and this was taken into consideration.

It is pertinent to note that issue of immunisation cards was not regularly practiced and in these areas immunization cards were in short supply.

With a proforma, each investigator enquired about DPT, Polio and BCG vaccination of children; about the T.T. vaccination of the mothers of the children. Data and source of immunization were noted. A child receiving 3 doses of DPT and OPV at a minimum interval of one month between the doses and one dose of BCG vaccination was considered to be fully immunised. An enquiry was made with respect to measles immunisation. Keeping in mind three factors namely, a) Chikmagalur being included under UIP only this year; b) Measles vaccine stocks having been procured only in August 1987 and c) objective of our evaluation being baseline immunisation coverage; Measles was not included as one of the criterion to declare a child as fully immunised.

The mothers of children who were not immunised or partially immunised were interviewed to find out the cause of the failure using the predesigned pretested schedule developed by WHO. Also, mothers of these (target) children were interviewed for Tetanus Toxoid status during pregnancy. These mothers and at least 7 mothers in each cluster (who belonged to Group II whose children were in the age group of 1 day to 12 months i.e. infants) were interviewed for knowledge attitude and practice with respect to the EPI diseases using the predesigned, pretested schedule developed by WHO.

6.2 Coverage Evaluation:

6.2.1. Findings of Coverage Evaluation

1. Number of clusters studied	: 30
2. Number of Houses visited	: 2554
(i) Average number of houses visited	85
(ii) Maximum number of houses visited	228
(iii) Minimum number of houses visited	58
3. Number of eligible children evaluated	: 210 (100.00)
4. Coverage of DPT & OPV I Dose	: 182 (86.67)
II Dose	: 158 (75.24)
III Dose	: 131 (62.38)
5. Coverage of BCG	: 109 (51.90)
6. Coverage of Measles	: N I L
7. Coverage of children with BCG.	: 92 (43.80)
3 doses of DPT & OPV (fully immunised)	
8. Dropout rate from I dose to II dose	: (13.18)
II dose to III dose	: (17.08)
I dose to III dose	: (28.02)
9. Number of children with documentary evidence	: 7 (3.33)
10. Tetanus Toxoid (Mothers) I dose	: 180 (85.71)
II Booster dose	: 165 (78.57)

7.0. Other findings during coverage assessment survey:

Antenatal Care was received by 161 (76.67) mothers.

Details of place of Delivery:

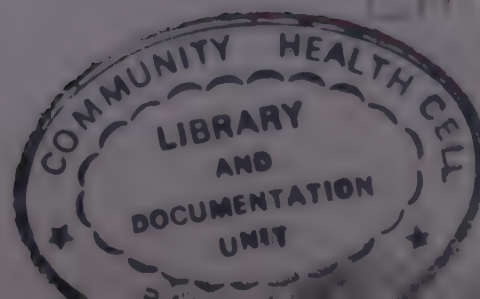
Place of Delivery	Number
Hospital	79 (37.62)
Home	129 (61.43)
Others	2 (0.95)
Total	210 (100.00)

Personnel in attendance during delivery:

Personnel in attendance	Number
Health staff	110 (52.38)
Trained dias	27 (12.86)
Untrained dias	23 (10.95)
Others	50 (23.81)
Total	210 (100.00)

Source of 1st dose of DPT and OPV:

Source	Fully Immunised Children	Partially Immunised Children	Total
Hospital	46 (63.88)	26 (36.22)	72 (40.00)
Health Centre	25 (37.88)	41 (62.22)	66 (36.67)
Outreach	14 (50.00)	14 (50.00)	28 (15.55)
Private	7 (50.00)	7 (50.00)	14 (7.77)
Total	92 (51.11)	88 (48.88)	180(100.00)



AGE AT INITIATION OF IMMUNIZATION

Age at initiation in months	Children who are fully immunized	Children who are partially immunized	Total
3	33(60.00)	22(40.00)	55(100.00) (64.70)
4	-	2(100.00)	2(100.00) (2.35)
5	4(33.33)	8(66.64)	12(100.00) (14.12)
6	3(60.00)	2(40.00)	5(100.00) (5.88)
7	2(66.66)	1(33.37)	3(100.00) (2.35)
8	-	2(100.00)	2(100.00) (2.35)
9	1(50.00)	1(50.00)	2(100.00) (2.35)
10	-	-	- -
11	-	-	- -
12	1(25.00)	3(75.00)	4(100.00) (4.70)
	44(51.76)	41(48.23)	85(100.00)(100.00)

The number of children for whom 1st dose of DPT and OPV was given very late was 4(4.70). This was at 12th month of age. The median age at which 1st dose of DPT and OPV was given to beneficiaries was 3 months.

8 REASONS FOR THE FAILURE OF IMMUNISATION:

LACK OF INFORMATION	Mothers of partially immunised children	Mothers of children who were not immunised	Total
1. Unaware of need for immunisation	32(36.36)	17(56.66)	49(41.52)
2. Unaware of need to return for 2nd or 3rd dose	5(5.68)	-	5(4.23)
3. Place and/or time of immunisation not known	1(1.13)	-	1(0.85)
4. Fear of side reactions	4(4.54)	-	4(3.39)
5. Wrong ideas about contraindications	-	-	-
Total	42(47.72)	17(56.66)	59(50.00)
LACK OF MOTIVATION			
1. Postponed till another time	5(5.68)	5(16.66)	10(8.47)
2. No faith in immunisation	7(7.95)	5(16.66)	12(10.17)
Total	12(13.63)	10(33.33)	22(18.64)
OBSTACLES			
1. Place of immunisation too far to go	5(5.68)	-	5(4.23)
2. Time of immunisation inconvenient	4(4.54)	1(3.33)	4(3.39)
3. Vaccinator absent	13(14.77)	1(3.33)	13(11.01)
4. Vaccine not available	1(1.13)	-	1(0.85)
5. Mother too busy	1(1.13)	1(3.33)	2(1.70)
6. Family problem including illness of mother	1(1.13)	-	1(0.85)
7. Child ill, not brought	8(9.09)	1(3.33)	9(7.63)
8. Child ill, brought, but not given	1(1.13)	-	1(0.85)
9. Long waiting time	-	-	-
Total	34(38.63)	3(10.00)	37(31.35)
Total	88(100.00)	30(100.00)	118(100.00)

Reasons for failure of immunisation were elicited from mothers of children who were partially immunised and mothers of children who were unimmunized. Lack of information was observed to be the main cause of failure among both partially immunised group i.e. 42(47.72) and unimmunised group i.e. 17(56.66). Obstacles appeared to be the next common cause among partially immunised group i.e. 34(38.63) where as among the unimmunised group lack of motivation appeared to be the next common cause i.e. 10(33.33).

9.0 COMMENTS AND RECOMMENDATIONS:

1. With the number of fully immunised children being 92(43.80), and with good health infrastructure of staff and facilities the district shows a favourable trend to achieve the objectives of UIP.
2. Proper maintenance and temperature recording of refrigerators needs urgent attention. It is worthwhile considering issue of cold boxes to all Primary Health Centres and establishing liason with a nearby ice factory as power failure for 8 hours every day was a common observation in the whole of the District except Chikmagalur town.
3. Correct loading of the vaccine carriers by the Health Workers for field sessions is a positive trend.
4. Documentary evidence being available for 7(3.33) children only, indicates that registration in the records of Anganwadi workers and Health workers and issue of immunisation cards to beneficiaries has to be drastically improved.
5. The median age at which 1st dose of DPT and OPV given to beneficiaries was 3 months. Identification of eligibles and immunising them as per schedule is an important aspect of UIP and the data indicate positive trend to achieve this

objective in the district.

6. The attempt made to elicit the source of first dose of DPT/OPV vaccinations indicated that outreach immunisation activities need to be augmented. This will further lead to improvement in documentation.
7. There is a good potential in the District to expand Antenatal services with 100% coverage for T.T.
8. There was no appreciable difference in KAP between mothers of children under the present base line coverage review and mothers of infants with respect to immunisation.
9. There is a need for concerted and systematic IEC and Health Education activities to promote community participation and to reduce the number of dropouts.
10. The importance of training cannot be over emphasised. All opportunities for training in the field and during periodic meetings must be fully utilised.
11. Leadership and team work was remarkable in the district.
12. It is most appropriate at this juncture to mention our experiences during the coverage assessment survey which will certainly throw light on coverage assessment surveys and implementations of immunisation programme in future.

In Chikmagalur District, particularly all taluks (Koppa, Sringeri, N.R. Pura, Mudigere and Chikmagalur) except Tarikere and Kadur, at times it was very difficult to cover even one cluster per day except in urban localities. Further, the terrain is rugged and reaching clusters itself was taking more time and further down one had to walk some times even for more than 2 to 3 kms. Even after reaching the cluster village, the houses were so much scattered that unless there was a local community member along with the

Health worker it was difficult to identify the limits of the village. Often it was like covering 10 houses in one hour particularly in Hemmakki near Kalasa and Bikkarane in Balehonnur. In such settings it is really worth considering alternative methods to cluster sampling technique. In ghat sections the units are arranged in serial order, random selection and total survey of units may be an alternative to seven children in a cluster. However it may be necessary to ascertain the extent to which the statistical validity of such a procedure gets affected in comparison to the cluster technique method.

Moderate to heavy rains add to the difficulties. It is hard therefore to expect health workers to visit the homes not only for UIP but for any other activity under National Health Programmes. Moreover it is inhuman to expect female workers to move about in forest areas alone. It is really worthwhile considering a different approach for achieving the objectives of UIP in such areas not only in Chikmagalur district, but also in other districts like South Kanara, Coorg and parts of Shimoga.

A pattern similar to pulsed regime could be adopted. In these villages it would be advisable for a team consisting of HAM (Sr. & Jr.) and HAF (Sr. & Jr.) to visit these villages according to a fixed time table covering in each village activities under all National Programmes, with emphasis on UIP. This approach to UIP would appropriately be termed "WGR" (Western Ghat Regimen). Ideally immunisation campaigns should be planned in these areas intensively in three successive months during non-monsoon period every year (NMR).

ANNEXURE - I

KNOWLEDGE, ATTITUDE AND PRACTICE OF HEALTH WORKERS:

Sixty Nine Health Workers: 19(27.53); 15(21.73); 17(24.63); 18(26.08) from the categories of Jr. Health Assistant (Female) Jr. Health Assistant (Male); Sr. Health Assistant (Female), Sr. Health Assistant (Male) respectively were subjected for KAP study by predesigned, pretested schedule developed in local language for the purpose. The workers belonged to headquarters town/villages where PHCs are situated. Twenty components under UIP were studied. Details are as follows:

Profile of Health Workers:

- * Among the workers studied, 57(82.60) were above 35 years of age. The mean age of Jr. Health Assistant female and male; Sr. Health Assistant female and male was respectively 30.39, 38.16 39.85 and 44.44 years respectively.
- * The mean duration of service of all the workers was 17.75 years, that of Jr. Health Assistant Female, Male, Sr. Health Assistant Female, Male was 9.07, 16.5, 20.21 and 23.33 years respectively.
- * Almost all workers i.e. 64(92.75) had MPW training. Seven (10.14) had EPI training and seven (10.14) had BCG training. None of the workers had UIP training. It was due in Oct. 1987.

K A P

- * Fortyeight workers (69.56) opined correctly that measles vaccine is to be administred either subcutaneously i.e. 17(24.63) or intramuscularly i.e. 31(44.92).
- * Among the workers 66(95.65) opined that BCG immunisation should be completed by 1 year of age.

- * Thirty four (49.27) workers knew the target beneficiaries for measles immunisation under UIP.
- * Twenty (28.98) workers were not aware of the correct time schedule of measles immunisation.
- * Immunisation of a child with 3 dose of DPT and OPV and one dose of BCG and one dose of measles vaccine must be completed by 1 year of age was known to 53(76.81) workers.
- * All the workers knew that vaccines are destroyed by heat and sunlight, and BCG vaccine is not to be administered intramuscularly. Fifteen (21.74) workers knew that malnutrition and diarrhoea are not contraindications for immunisation.
- * Twenty two (31.89) workers did not know about the amount of water to be used for the preparation of ice packs.
- * Fifty five (79.71) knew that defrosting is to be done once the frost collection is more than 5.00 mm in the refrigerator. Forty three (62.32) workers knew that diluents used for BCG and Measles vaccines are not to be kept in the freezer compartment of the refrigerator.
- * Sixty four (92.75) workers and 63(91.30) workers respectively knew that Polio vaccine vials are to be kept over ice cubes during a vaccination session and interval between two doses of DPT/OPV should be a minimum of one month.
- * Twenty (28.98) drew the correct diagram of loading of a vaccine carrier with vaccine vials and ice packs.
- * Eleven (15.94) workers knew that Measles and Polio vaccines are to be stacked in the chilling tray of the refrigerator.

- * Six (8.69) workers knew that water bottles are to be stacked in the lowermost compartment of the refrigerator.
- * Forty one (59.42) workers knew that temperature of the refrigerator is to be maintained and recorded at least twice daily.
- * Eighteen workers (26.09) were not aware of proper sterilization of needles and syringes.
- * Sixty six (95.65) knew that the needle of the BCG syringe is to be sterilised by the flame of a spirit lamp.

ANNEXURE - II

KAP OF MEDICAL OFFICERS:

- * Using predesigned pretested schedule developed for the purpose, (open answers) thirteen Medical Officers were subjected for KAP study with respect to monitoring, supervision and other components of Universal Immunisation Programme. Highlights of the same are as follows.
- * The mean duration of service of the Medical Officers was 14.6 years, maximum being 29 years and minimum being 1 year. EPI modular training was due in the month of October 1987.
- * As regards the methods (multiple answers) they adopt to supervise the performance of the Health Workers with respect to immunisation activities, 9(69.23) expressed that they visit the field to inspect the performance. Seven (53.84) Medical Officers, adopted to check the records while 4(30.77) expressed that they would ask the public.
- * Three Medical Officers felt that checking the stock of vaccines, conducting a survey or enquiry from the Supervisory staff were ways of assessing the performance.
- * When enquired to name one non-training solution to the problem faced if a worker's performance continues to be unsatisfactory inspite of providing necessary training and facilities, 5(38.45) appropriately answered that they would take disciplinary action. Eight (61.54) Medical Officers gave incorrect answers while one did not attempt. Two (15.38) Medical Officers mentioned that they would further do field demonstration where as one Medical Officer preferred to get the work done by the supervisor.
- * None of the Medical Officers could mention appropriate reasons for failure of immunization under either of the categories

viz., "lack of information", "lack of motivation" and "obstacles".

* When asked to name a statistical method they would adopt if they undertake vaccination coverage assessment, only 1(7.69) Medical Officer mentioned cluster sampling technique. It is of interest to review the other answers.

<u>Answers given</u>	<u>No. of Medical Officers</u>
Cluster sampling Technique	1 (7.69)
Child survey	1 (7.69)
Door to door survey	2 (15.38)
Checking the No. of doses of vaccine used by the Health Worker	1 (7.69)
Random survey	2 (15.38)
Study of incidence of diseases	1 (7.69)
Study of mortality due to diseases	2 (7.69)
By checking the number of immunised children	
By sorting out the number of children not immunised	1 (7.69)
Not attempted	2 (15.38)

* only one (7.69) Medical Officer knew what is job aid.

* Nine (69.23) were indenting vaccines once a month for their Primary Health Centres.

* The response to the question "target beneficiaries under UIP" was as follows (multiple answers):

Target BeneficiariesNo. of Medical Officers

Pregnant women	8 (61.54)
Children under 1 year	2 (15.38)
Children under 3 months - 12 years	1 (7.69)
Children 0 - 10 years	4 (30.77)
Children 0 - 6 years	2 (15.38)
Children 0 - 15 years	6 (46.15)
Children 0 - 12 years	1 (7.69)

- * Five (38.46) Medical Officers opined that Surgical Spirit is a must for immunisation activities.
- * Eight (61.54) Medical Officers opined that recording of temperature of the refrigerator is to be done more frequently than once a week.
- * Eight (61.54) Medical Officers knew that water bottles are to be kept in the lowermost compartment of the refrigerator.
- * Twelve (92.31) Medical Officers opined that Measles and Polio vaccine vials are to be stored in the chilling tray of the refrigerator.
- * Eleven (84.62) Medical Officers knew target beneficiaries for Measles vaccination under UIP.
- * Four (30.77) Medical Officers knew that low grade fever, diarrhoea and malnutrition are not contraindication for immunisation.
- * Eleven (84.62) Medical Officers knew that the diluent used for Measles and BCG vaccines are not to be kept in the freezer compartment of the refrigerator.
- * Six (46.15) Medical Officers appropriately disagreed that ice

packs are to be filled with water upto half their capacity while preparing ice packs for carrying the vaccines in the vaccine carrier.

* The follwoing were the answers to the "ultimate objective of UIP"

<u>Answers</u>	<u>No. of Medical Officers</u>
Reduce Mortality and Morbidity among children	9 (69.23)
100% coverage of Beneficieries	4 (30.77)
Eradication of diseases	1 (7.69)
To promote sound health	1 (7.69)
To control disease and prevent handicaps	1 (7.69)
To reduce IMR	1 (7.69)

* The following resources were mentioned as additonal resources for immunisation activity apart from men, money and material.

<u>Answers</u>	<u>No. of Medical Officers</u>
Attempted, but incorrect	6 (46.15)
Involve local leaders	4 (30.77)
Involve voluntary organisations	5 (38.46)
Involve private practioners	3 (23.07)
Use TV/Radio	2 (15.38)
Use hand bills	1 (7.69)
Use mass media like news paper	1 (7.69)
Involve schools	1 (7.69)
Conduct well baby clinics	1 (7.69)
Involve local bodies	1 (7.69)

ANNEXURE III

**PROFORMA FOR DISTRICT OFFICE
STAFF POSITION**

Designation of the post	No. of posts Sanctioned	No. of posts Working
1. District Health & Family Welfare Officer.		
2. Assistant District Health & Family Welfare Officers.		
3. Medical Officer (MCH & FW)		
4. Medical Officers		
5. Lady Medical Officers		
6. Asst. Nutrition Officer		
7. District Health Education Officer		
8. Deputy Health Education Officer		
9. District Nursing Supervisors		
10. Senior Non-Medical Supervisors		
11. Junior Non-Medical Supervisors		
12. Sr. Health Assistant (Male)		
13. Sr. Health Assistant (Female)		
14. Health visitor (Tuberculosis)		
15. BCG Team Leader		
16. Block Health Educator		
17. Statistical Investigator		
18. Asst. Statistical Officers		
19. Refrigerator Mechanic		
20. Staff Nurses		
21. Jr. Health Assistants (Male)		
22. Sr. Health Assistants (Female)		
23. Vehicle Drivers		
24. Village Health Guides		
25. Refractionists		
26. Pharmacists		

Immunization activities from Sept. 1986 to Aug. 1987

	<u>Vaccine</u>	<u>No. of Beneficiaries</u>
DPT	Ist Dose	
	IIInd Dose	
	IIIrd Dose	
OPV	Ist Dose	
	IIInd Dose	
	IIIrd Dose	
BCG		
Measles		
T.T.	Ist Dose	
	IIInd Dose or Booster	

District Health and
Family Welfare Officer
Chikmagalur District
CHIKMAGALUR.

STATEMENT SHOWING THE PROCUREMENT AND DISTRIBUTION OF VACCINES

FROM 1ST SEPTEMBER 1986 TO 31ST AUGUST 1987

Sl. No.	Vaccines	Items in Doses	Opening Balance as on 1.9.86	Receipts	Total	Issue to Peripharal Institutions
---------	----------	----------------	------------------------------	----------	-------	----------------------------------

D P T

Polio

D & T

T.T.

T A B

Measles

B C G

Closing Balance
as on 31.8.1987

Remarks

District Health Officer
Chikmagalur District
CHIKMAGULUR

ANNEXURE IV

INFORMATION ON COLD CHAIN EQUIPMENT IN PRIMARY HEALTH CENTRES.

Stock as on 31st August 1987.

EQUIPMENT

1. Refrigerator	:
2. Cold Boxes	:
3. Vaccine Carrier -	
i) Outreach activity	:
ii) Campaign activity	:
4. Ice packs	:
5. Hot air oven	:
6. Syringes 2 cc	:
7. B C G Syringes	:
8. Needles No. 23	:
No. 24	:
No. 26	:
9. Spirit lamps	:
10. Sterilisers	:
11. Dressing bins	:
12. Syringe holding forceps	:
13. Spirit swab bowl	:
14. Voltage stabiliser	:
15. Temperature recording done daily twice	:
16. Duration of electricity supplied for the day	:

Medical Officer
Primary Health Centre.....
Chikmagalur District

ANNEXURE V

PROFORMA FOR PHCs
(Staff Position and Vehicle)

- | | |
|--|---|
| 1. Total No. of H.A.M. (Jr) | : |
| 2. Total No. of H.A.F. (Jr) | : |
| 3. Total No. of H.A.F. (Sr) | : |
| 4. Total No. of H.A.M. (Sr) | : |
| 5. Total No. of Refractionists | : |
| 6. Total No. of Pharmacists | : |
| 7. Total No. of M.O. | : |
| C.H.V. | : |
| Adm. | : |
| Lady M.O. | : |
| I.P.P. | : |
| Others | : |
| Total | : |
| 8. Total No. of Helpers | : |
| 9. Total No. of Sweepers | : |
| 10. Any other staff | : |
| 11. Total No. of Jeeps working/Not working | : |
| If not working since how many days | : |

If any post is vacant, please mention how long it is vacant in the following:

Name	Name of the post	How long it is vacant
------	------------------	-----------------------

Medical Officer
Primary Health Centre.....
Chikmagalur District

ANNEXURE VI

SCHEDULE FOR KAP OF MEDICAL OFFICERS

Duration of Service

Undergone training in UIP
Yes/No

1. You are incharge of supervision of immunisation activities in your PHC area. Name two methods you adopt to supervise the performance of a Health Worker.
2. One Health Worker in your PHC is not performing immunisation activities satisfactorily. You have solved his practical difficulties and provided necessary training to perform immunisation activities. Still he does not cope up with the work. Name one Non-training solution to this problem.
3. In two villages coming under your jurisdiction, the community is not participating in immunisation programmes satisfactorily. Give one cause for :-
 1. Lack of information
 2. Obstacles
 3. Lack of Motivation
4. Name a statistical method you propose to adopt if you are undertaking Evaluation of vaccination coverage in your PHCs area.
5. Name five additional resources for immunisation activity apart from men, material and money you have from the Health Department.
 1. 4.
 2. 5.
 - 3.
6. What is job aid?

7. What is apprenticeship?
8. How often would you indent vaccines for your Primary Health Centre?
9. Who are all the target beneficiaries under Universal Immunisation Programme?
10. What is the ultimate objective of Universal Immunisation Programme?
11. Do you feel that Surgical Spirit is a must for immunisation activities?
12. State whether the following statements are true or false:-
 - a) Temperature of the refrigerator is to be recorded atleast once a week.
 - b) While ice packs are being prepared care should be taken to see that they are filled with water atleast upto half.
 - c) Water bottles are to be stored in the lower most compartment of the refrigerator.
 - d) Measles and Polio vaccine should not be stored in the chilling tray of the refrigerator.
 - e) Under UIP Measles vaccination is to be given only to those children who have received three doses of DPT, Polio and BCG.
 - f) Low grade fever, malnutrition and diarrhoea are contra-indications for immunisation.

ANNEXURE - VII

ಆರೋಗ್ಯ ಕಾರ್ಯಕ್ರಮದ ಪರಿಷ್ಕರಣಾ ನಮೂನೆ

ಆರೋಗ್ಯ ಕಾರ್ಯಕ್ರಮದ ವಿವರ:-

(ವಿಸ್ತರಣಾ ಬರೆಯುವುದು)

I ವಯಸ್ಸು _____

II ಲಿಂಗ _____

IIII ಆರೋಗ್ಯ ಕಾರ್ಯಕ್ರಮದ ಅನುಭವ _____

IV ರೋಗ ನಿರೋಧಕ ಚುಚ್ಚುವುದನ್ನು ನೀಡುವ ವಿಷಯದಲ್ಲಿ ಹೆಚ್ಚಿನ ಅಗತ್ಯವೇ?

ಹೌದು / ಇಲ್ಲ

V (ಅ)

1. ಎ ಸಿ ಜಿ ರೋಗನಿರೋಧಕ ಚುಚ್ಚುವುದನ್ನು ಮಕ್ಕಳಿಗೆ _____

ತಿಂಗಳಿನಲ್ಲಿ ನೀಡಬೇಕು.

2. ದಡಾರ ನಿರೋಧಕ ಚುಚ್ಚುವುದನ್ನು _____ ರೀತಿಯಲ್ಲಿ ಮಗುವಿಗೆ

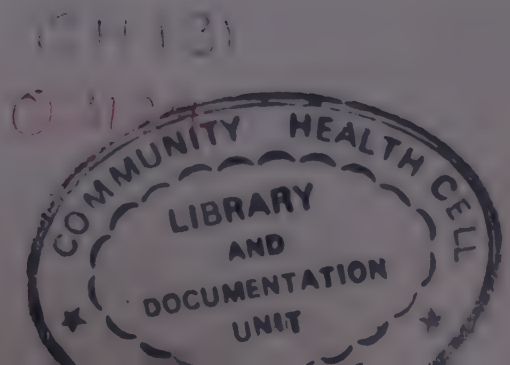
ನೀಡಬೇಕು.

3. ದಡಾರ ನಿರೋಧಕ ಚುಚ್ಚುವುದನ್ನು _____ ತಿಂಗಳಲ್ಲಿ ಮಕ್ಕಳಿಗೆ

ನೀಡಬೇಕು.

4. ದಡಾರ ನಿರೋಧಕ ಚುಚ್ಚುವುದನ್ನು _____ ಲಸಿಕೆಗಳನ್ನು ನೀಡಿದ

ಮಕ್ಕಳಿಗೆ ಮಾತ್ರ ನೀಡಬೇಕು.



5. ನೀವು ಈಗ ಚುಚ್ಚು ಮದ್ದು ಕಾರ್ಯಕ್ರಮಕ್ಕೆ ಹೊರಟಿದ್ದೀರೆಯೆಂದುಕೊಳ್ಳಿರಿ. ನಿಮ್ಮ ವ್ಯಾಕೃತಿಯನ್ನು ಕಾಣಿಸಿಕೊಳ್ಳುವುದು ಎಲ್ಲಾ ಲಸಿಕೆಗಳನ್ನು ಯಾವ ರೀತಿ ಜೋಡಿಸುತ್ತೀರಿ ಎಂಬುದನ್ನು ಚಿತ್ರ ಮುಖೇನ ಬರೆಯಿರಿ.

6. ಶೀತ ಒತ್ತೆಗಳು (Ice Packs)ಯಾರಿ ಮಾಡುವಾಗ ಶೀತಒತ್ತೆಗಳನ್ನು _____ ರಷ್ಟು ಮಾತ್ರ ನೀರನ್ನು ತುಂಬಿರಬೇಕು.

7. ರೆಫ್ರಿಜರೇಟರಿನ ಫ್ರೀಜರಿನ ಕೆಳಗಿರುವ ಟ್ರೇನನ್ನು _____ ಮತ್ತು _____ ವ್ಯಾಕೃತಿಯನ್ನುಗಳ ವಯಾಲನ್ನು ಜೋಡಿಸಬೇಕು.

(ಆ) ಈ ಕೆಳಕಂಡವುಗಳಿಗೆ 'ಸರಿ' ಅಥವಾ 'ತಪ್ಪು' ತಿಳಿಸಿರಿ

1. ಎರಡು ವರನೆ (ಡೋಸೆ) ಡಿ.ಪಿ.ಜಿ ಚುಚ್ಚುಮದ್ದಿನ ನಡುವೆ ಕನಿಷ್ಠ ಒಂದು ತಿಂಗಳ ಅಂತರವಿರಬೇಕು. ()
2. ಮಕ್ಕಳಿಗೆ ಪಾಷ್ಚಾತ್ಯತೆಯ ಮಟ್ಟ ಕಡಿಮೆಯಾದ್ದರಿಂದ ಅಥವಾ ಬೇಧಿ ಬಾಯಿರಿ ಇದ್ದರಿಂದ ರೋಗನಿರೋಧಕ ಚುಚ್ಚುಮದ್ದನ್ನು ನೀಡಬಾರದು. ()
3. ಶಾಖದಿಂದ ಮತ್ತು ಸೂರ್ಯನ ಕಿರಣಗಳಿಂದ ಲಸಿಕೆಗಳು ನಾಶ ಹೊಂದುತ್ತವೆ. ()
4. ಡಿ.ಪಿ.ಜಿ ಲಸಿಕೆಯ ವಯಾಲನ್ನು ಮಂಜುಗಡ್ಡೆಯ ಮೇಲೆ ನೇರವಾಗಿ ಇಡಬಾರದು. ()
5. ರೋಗನಿರೋಧಕ ಲಸಿಕೆಗಳನ್ನು ನೀಡುವಾಗ ವಯಾಲನ್ನು ಒಂದು ಬಟ್ಟೆಯಲ್ಲಿ ಮಂಜುಗಡ್ಡೆ ಹಾಕಿ ಅದರ ಮೇಲೆ ಅಥವಾ ಒಂದು ಶೀತಒತ್ತೆಯ ಮೇಲೆ ಇಡಬೇಕು. ()
6. ಡಿ.ಪಿ.ಜಿ ಮತ್ತು ದಡಾರ ಲಸಿಕೆಯನ್ನು ಕರಗಿಸಲು ಉಪಯೋಗಿಸುವ ದ್ರಾವಣವನ್ನು ಶೀತಕದ (ರೆಫ್ರಿಜರೇಟರಿನ) ಫ್ರೀಜರ್ ಕಂಪಾರ್ಟ್‌ಮೆಂಟಿನಲ್ಲಿಡಬೇಕು. ()

7. ರೆಫ್ರಿಜರೇಟರಿನ ವುಂಜುಗಡ್ಡೆ ಅರ್ಥ ನೆಂ-ವೀ-ನಷ್ಟು ಕಟ್ಟಿದಾಗ ರೆಫ್ರಿಜರೇಟರಿನನ್ನು ಸ್ತಬ್ಧವೂಡಬೇಕು. ()
8. ಡಿ.ಸಿ.ಡಿ ಲಸಿಕೆಯನ್ನು ಸ್ನಾಯುಗಳಲ್ಲಿ ಕೂಡಬೇಕು. ()
9. ರೆಫ್ರಿಜರೇಟರಿನ ಕೆಳಗೂ ಕಂಪಾರ್ಟ್‌ಮೆಂಟಿನಲ್ಲಿ _____ ಜೋಡಿಸಬೇಕು. ()
10. ರೆಫ್ರಿಜರೇಟರಿನ ತಾಪವನ್ನು ಎಷ್ಟು ಬಾರಿ ನೋಡಬೇಕು ? ()
- ಅ. ವಾರಕ್ಕೊಮ್ಮೆ
ಆ. ವಾರಕ್ಕೊಮ್ಮೆ ಬಾರಿ
ಇ. ದಿನಕ್ಕೊಮ್ಮೆ
ಈ. ದಿನಕ್ಕೊಮ್ಮೆ ಬಾರಿ
11. ಮಗುವಿಗೆ ಒಂದು ವರ್ಷವಾಗುವುದರೊಳಗೆ _____, _____
ಮತ್ತು _____, ಮತ್ತು _____ ಲಸಿಕೆಗಳನ್ನು ನೀಡಬೇಕು.
12. ಸಿರಿಲಂಜು, ಸೂಜಿಗಳನ್ನು ಸಂಸ್ಕರಿಸುವಾಗ ನಿವಿಷಗಳವರೆಗೆ ನೀರನ್ನು ಕುದಿಸಬೇಕು.
13. ಡಿ.ಸಿ.ಡಿ ನೀಡುವ ಸೂಚಿಯನ್ನು _____ ರೀತಿಯಲ್ಲಿ ಸಂಸ್ಕರಿಸಬೇಕು.

